

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of the claims in the application.

Listing of Claims:

1.(currently amended) An apparatus ~~stream switch fabric~~ comprising:

a stream switch fabric including:

at least one stream queue that operates to receive and store a plurality of properly ordered substreams of a data stream from a producer of the data stream; and

a stream queue controller, coupled to said at least one stream queue, that operates to control outputting of at least a portion of the data within the at least one stream queue to a consumer of the stream queue.

2.(currently amended) An apparatus ~~fabric~~ according to claim 1, wherein the stream queue controller operating to control outputting of at least a portion of the data within the at least one stream queue to a consumer of the stream queue comprises triggering forwarding of a copy of at least a portion of the data within the stream queue to a consumer of the stream queue.

3.(currently amended) An apparatus ~~fabric~~ according to claim 1, wherein the stream queue controller operating to control outputting of at least a portion of the data within the at least one stream queue to a consumer of the stream queue comprises triggering forwarding of at least a portion of the data within the stream queue to a consumer of the stream queue and deleting said portion of the data within the stream queue.

4.(currently amended) An apparatus ~~fabric~~ according to claim 1, wherein the stream queue controller operating to control outputting of at least a portion of the data within the at least one stream queue to a consumer of the stream queue comprises reading a consumer attribute for the stream queue to determine an assigned consumer of the stream queue and triggering outputting of a portion of the data within the stream queue to the assigned consumer.

5.(currently amended) An apparatus ~~fabrie~~ according to claim 1, wherein the stream queue controller operating to control outputting of a least a portion of the data within the at least one stream queue to a consumer of the stream queue comprises selecting a consumer as a consumer for the stream queue based upon a predetermined criteria and triggering outputting of a portion of the data within the stream queue to the selected consumer.

6.(currently amended) An apparatus ~~fabrie~~ according to claim 1, wherein the stream queue controller further operates to receive a control signal associated with the at least one stream queue.

7.(currently amended) An apparatus ~~fabrie~~ according to claim 6, wherein the control signal comprise an indication of at least one consumer attribute for the at least one stream queue.

8.(currently amended) An apparatus ~~fabrie~~ according to claim 7, wherein the consumer attribute comprises an indication of the consumer that is assigned as the consumer of the stream queue.

9.(currently amended) An apparatus ~~fabrie~~ according to claim 7, wherein the consumer attribute comprises the number of bytes of the data within the stream queue that are to be output to the consumer of the stream queue.

10.(currently amended) An apparatus ~~fabrie~~ according to claim 6, wherein the control signal comprises an instruction to trigger copying of at least a portion of the data within the stream queue to the consumer of the stream queue.

11.(currently amended) An apparatus ~~fabrie~~ according to claim 6, wherein the control signal comprises an instruction to trigger forwarding of at least a portion of the data within the stream queue to the consumer of the stream queue and deleting of this portion of the data within the stream queue.

12.(currently amended) An apparatus ~~fabrie~~ according to claim 6, wherein the at least one stream queue comprises a plurality of stream queues and the control signal comprises an

instruction to trigger transferring of at least a portion of the data within the stream queue to a second stream queue of the plurality of stream queues.

13.(currently amended) An apparatus ~~fabrie~~ according to claim 1, wherein the at least one stream queue comprises a plurality of stream queues and the plurality of stream queues are hierarchical.

14.(currently amended) An apparatus ~~fabrie~~ according to claim 1, wherein the at least one stream queue comprises at least one register.

15.(currently amended) An apparatus ~~fabrie~~ according to claim 1, wherein said at least one stream queue comprises at least one buffer.

16.(currently amended) An apparatus ~~fabrie~~ according to claim 1, wherein the stream queue controller comprises at least one application specific integrated circuit.

17.(currently amended) An apparatus ~~fabrie~~ according to claim 1, wherein the stream queue controller comprises at least one reduced instruction set computer processor.

18.(currently amended) An apparatus ~~fabrie~~ according to claim 1, wherein the stream queue controller comprises at least one complex instruction set computer processor.

19.(currently amended) An apparatus ~~stream-switch fabrie~~ comprising:

a stream switch fabric including:

reception means for receiving a plurality of properly ordered substreams of a data stream from a producer of the data stream;

storage means for storing the substreams; and

control means for controlling outputting of at least a portion of the data within the means for storing the substreams to a consumer of the data stream.

20.(currently amended) An apparatus ~~fabrie~~ according to claim 19, wherein the control means comprises copy means for copying at least a portion of the data within the means for storing

the substreams and forwarding means for forwarding the copy of the at least a portion of the data.

21.(currently amended) A method of processing streams of data comprising:

receiving properly ordered substreams of a data stream, said properly ordered substreams of data comprising data reconstituted from a flow of packets;

storing the substreams within a stream queue associated with the data stream; and
outputting at least a portion of the data within the stream queue to a consumer of the stream queue.

22.(original) A method according to claim 21, wherein the outputting at least a portion of the data within the stream queue to a consumer of the stream queue comprises forwarding a copy of at least a portion of the data within the stream queue to a consumer of the stream queue.

23.(original) A method according to claim 21, wherein the outputting at least a portion of the data within the stream queue to a consumer of the stream queue comprises forwarding at least a portion of the data within the stream queue to a consumer of the stream queue and deleting this portion of the data within the stream queue.

24.(original) A method according to claim 21, wherein the outputting at least a portion of the data within the stream queue to a consumer of the stream queue comprises reading a consumer attribute for the stream queue to determine an assigned consumer of the stream queue and outputting a portion of the data within the stream queue to the assigned consumer.

25.(original) A method according to claim 21, wherein the outputting at least a portion of the data within the stream queue to a consumer of the stream queue comprises selecting a consumer as a consumer for the stream queue based upon a predetermined criteria and outputting a portion of the data within the stream queue to the selected consumer.

26.(original) A method according to claim 25, wherein the predetermined criteria comprises a round robin system.

27.(original) A method according to claim 25, wherein the predetermined criteria comprises a determination of a least burdened consumer.

28.(original) A method according to claim 21, further comprising receiving a control signal associated with the stream queue from the consumer of the stream queue.

29.(original) A method according to claim 28, wherein the control signal comprises an indication of at least one consumer attribute for the stream queue.

30.(previously presented) A method according to claim 29, wherein the consumer attribute comprises an indication of the consumer that is assigned as the consumer of the stream queue.

31.(original) A method according to claim 29, wherein the consumer attribute comprises the number of bytes of the data within the stream queue that are to be output to the consumer of the stream queue.

32.(original) A method according to claim 28, wherein the control signal comprises an instruction to copy at least a portion of the data within the stream queue to the consumer of the stream queue.

33.(original) A method according to claim 28, wherein the control signal comprises an instruction to forward at least a portion of the data within the stream queue to the consumer of the stream queue and delete this portion of the data within the stream queue.

34.(original) A method according to claim 28, wherein the control signal comprises an instruction to transfer at least a portion of the data within the stream queue to another stream queue.

35.(currently amended) An apparatus ~~fabrie~~ according to claim 5, wherein the predetermined criteria comprises a round robin system.

36.(currently amended) An apparatus ~~fabrie~~ according to claim 5, wherein the predetermined criteria comprises a determination of a least burdened consumer.

37 (New) An apparatus according to claim 1 wherein each of the plurality of properly ordered substreams of a data stream comprise data reconstituted from a flow of packets.